

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Sub C3 1. (Currently Amended) A method for managing resource usage of a particular resource by a set of related code, the method comprising:

B1 associating a resource indicator with the related code that indicates an amount of resource usage of the particular resource by the related code, wherein related code is defined as code ~~which can logically be charged as a single entity for its resource usage~~ which originates from a same source or owner; and

updating the resource indicator when the related code increases or decreases its collective resource usage of the particular resource.

2. (Original) A method as recited in claim 1 wherein the resource indicator's amount represents an absolute value of the resource usage.

3. (Original) A method as recited in claim 1 wherein the resource indicator's amount represents a proportional value of the resource usage.

4. (Original) A method as recited in claim 1 further comprising:

associating the related code with each resource portion of the particular resource that is allocated for the related code; and

disassociating the related code with each resource portion of the particular resource that is deallocated for the related code,

wherein the resource indicator is decreased when a resource portion is deallocated and increased when a resource portion is allocated for the related code.

5. (Original) A method as recited in claim 4 further comprising:

allocating the particular resource to the related code when the resource indicator is below a maximum predetermined threshold; and

indicating an error and not allocating the particular resource when the resource indicator is above the maximum predetermined threshold.

6. (Original) A method as recited in claim 5 wherein the error is indicated by throwing an out_of_memory exception.

7. (Original) A method as recited in claim 4 wherein the related code is disassociated through a garbage collection procedure.

8. (Original) A method as recited in claim 1 wherein the particular resource is selected from a group consisting of memory usage, open file usage, open socket usage, and monitor usage.

9. (Original) A method as recited in claim 8 wherein the resource indicator indicates a percentage of the particular resource that is utilized by the related code.

10. (Original) A method as recited in claim 8 further comprising:

associating a plurality of thresholds with the particular resource and the related code; and

notifying a registered resource callback when the amount of resource usage of the particular resource by the related code exceeds a first one of the thresholds.

11. (Previously Presented) A method as recited in claim 10 further comprising notifying a registered resource callback when the amount of resource usage of the particular resource by the related code drops below a second one of the thresholds that has a different value than the first threshold.

12. (Previously Presented) A method as recited in claim 10 further comprising notifying a registered resource callback when the amount of resource usage of the particular resource by the related code drops below the first threshold.

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13. (Original) A method as recited in claim 1 wherein the particular resource is CPU usage or network usage.

14. (Original) A method as recited in claim 13 further comprising:

associating a threshold with the particular resource and the related code; and

indicating that the related code's priority for CPU usage be decreased when the amount of resource usage of the particular resource by the related code exceeds the threshold.

15. (Original) A method as recited in claim 14 further comprising:

associating a second threshold with the particular resource and the related code; and

indicating that the related code's priority for CPU usage be boosted when the amount of resource usage of the particular resource by the related code drops below the second threshold.

16. (Original) A method as recited in claim 1 wherein the related code is configured to be executed on behalf of an applet in the form of threads.

17. (Original) A method as recited in claim 1 further comprising:

associating a plurality of resource indicators with the related code that each indicates an amount of resource usage of a plurality of resources by the related code; and

updating a selected resource indicator when the related code increases or decreases its collective resource usage of the associated resource.

18. (Original) A method as recited in claim 17 wherein the resources include memory usage, CPU usage, and network usage.

19. (Original) A method as recited in claim 18 wherein the resources further include open file usage and open socket usage.

20. (Currently Amended) A computer readable medium containing computer codes for managing resource usage, the computer readable medium comprising:

computer code for associating a resource indicator with the related code that indicates an amount of resource usage of the particular resource by the related code, wherein related code is defined as code ~~which can logically be charged as a single entity for its resource usage~~ which originates from a same source or owner; and

computer code for updating the resource indicator when the related code increases or decreases its collective resource usage of the particular resource.

21. (Original) A computer readable medium as recited in claim 20 further comprising:

computer code for associating the related code with each resource portion of the particular resource that is allocated for the related code; and

computer code for disassociating the related code with each resource portion of the particular resource that is deallocated for the related code,

wherein the resource indicator is decreased when a resource portion is deallocated and increased when a resource portion is allocated for the related code.

22. (Previously Presented) A computer readable medium as recited in claim 21 further comprising:

computer code for allocating the particular resource to the related code when the resource indicator is below a maximum predetermined threshold; and

computer code for indicating an error and not allocating the particular resource when the resource indicator is above the maximum predetermined threshold.

23. (Original) A computer readable medium as recited in claim 20 wherein the particular resource is selected from a group consisting of memory, open files, open sockets, and monitors.

24. (Original) A computer readable medium as recited in claim 23 further comprising:

computer code for associating a plurality of thresholds with the particular resource and the related code; and

computer code for notifying a registered resource callback when the amount of resource usage of the particular resource by the related code exceeds a first one of the thresholds.

25. (Original) A computer readable medium as recited in claim 23 further comprising computer code for notifying a registered resource callback when the amount of resource usage of the particular resource by the related code drops below a second one of the thresholds that has a different value than the first threshold.

26. (Original) A computer readable medium as recited in claim 20 wherein the particular resource is CPU usage or network usage.

27. (Original) A computer readable medium as recited in claim 26 further comprising:

computer code for associating a threshold with the particular resource and the related code; and

B1 computer code for indicating that the related code's priority for CPU usage be decreased when the amount of resource usage of the particular resource by the related code exceeds the threshold.

28. (Original) A computer readable medium as recited in claim 27 further comprising:

computer code for associating a second threshold with the particular resource and the related code; and

computer code for indicating that the related code's priority for CPU usage be boosted when the amount of resource usage of the particular resource by the related code drops below the second threshold.

29. (Previously Presented) A computer readable medium as recited in claim 20 wherein the related code is configured to be executed on behalf of an applet in the form of threads.

30-37 (cancelled).